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Moral Disengagement and School Bullying Perpetration in Middle Childhood: A Short-Term Longitudinal Study in Sweden

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ABSTRACT

The aim of the current study was to longitudinally investigate the bi-directional relationship between moral disengagement and bullying perpetration in a sample of 1,354 students from 108 elementary classes in 69 public schools. Students participated in the study both at Time 1 (fourth grade) and around one year later at Time 2 (fifth grade). Structural equation model analyses showed that bullying perpetration at Time 1 predicted moral disengagement at Time 2, when controlling for moral disengagement stability over time. In addition, we found that moral disengagement at Time 1 also predicted bullying perpetration at Time 2, when controlling for bullying perpetration at Time 1. These findings suggest that teachers, school staff, and professionals should consider interventions that address moral disengagement when working with children involved in bullying.

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KEYWORDS

Bullying; perpetration; children; middle childhood; moral disengagement

Bullying, usually defined as repeated aggression directed at individuals who are less powerful (Jimerson, Swearer, & Espelage, 2010; Olweus, 1993), is a pervasive problem in schools throughout the world (Chester et al., 2015; Lian et al., 2018; Tanrikulu, 2018). Adolescents who engage in bullying perpetration are at an elevated risk of psychological problems, delinquency, violence, criminality, and social adjustment problems in later adolescence and adulthood (Bender & Lösel, 2011; Copeland, Wolke, Angold, & Costello, 2013; Luukkonen, Riala, Hakko, & Räsänen, 2011; Renda, Vassallo, & Edwards, 2011; Stavrinides, Georgiou, Nikiforou, & Kiteri, 2011). From an ethical point of view, bullying perpetration can be regarded as an “immoral” behavior (Hymel, Schonert-Reichl, Bonanno, Vaillancourt, & Rocke Henderson, 2010) considering that it is recognized as a “systematic abuse of power” (Smith & Sharp, 1994, p. 2) with the intention to cause harm. In line with this proposition, studies (Thornberg, 2010; Thornberg, Thornberg, Alamaa, & Daud, 2016) have shown that schoolchildren tend to judge bullying perpetration as a serious transgression, regardless of school rules. Schoolchildren also believe that bullying perpetration is worse than conventional transgressions, and they justify their moral judgment of bullying perpetration by referring to the harm it causes the victim (Thornberg, 2010; Thornberg et al., 2016). Bullies, however, tend to judge bullying perpetration as less serious than their peers (Thornberg, Pozzoli, Gini, & Hong, 2017).

Social-cognitive theory of moral disengagement

According to the social-cognitive theoretical framework (Bandura, 1999, 2016), moral agency must be understood as being situated and learned through the environment and culture in which people establish their social relationships. Bandura (1999, 2016) introduced the concept of *moral disengagement*, referring to social and psychological maneuvers by which self-regulated mechanisms can be

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deactivated and moral self-sanctions can be disengaged, which in turn promotes or facilitates behaviors that harm others without feelings of remorse or guilt. Examples of moral disengagement include using worthy ends or moral purposes to excuse pernicious means (*moral justification*), diluting personal responsibility because other people are also involved (*diffusion of responsibility*), disregarding or distorting the negative or harmful consequences of actions, and believing that the victim deserves his or her suffering (*blaming the victim*).

The social-cognitive theory (Bandura, 1999, 2016) states that the change in moral disengagement and immoral behavior is a gradual, reciprocal process over time. In other words, children who initially bully others may gradually disengage self-sanctions for such behavior, which allows them to maintain bullying perpetration with fewer and fewer feelings of guilt and remorse. Bullying perpetration thus predicts moral disengagement over time. At the same time, these children may continue to disengage from self-sanctions for bullying perpetration, which in turn allows them to increase their bullying behavior in the future. In this sense, moral disengagement predicts bullying perpetration over time. Such a development might consist, as suggested by Wang, Ryoo, Swearer, Turner, and Goldberg (2017), of “perpetuating a cycle between moral disengagement and aggressive behavior” (p. 1305). The current study is designed to examine this possible bidirectional, longitudinal association between moral disengagement and bullying perpetration.

Moral disengagement and bullying perpetration

Previous cross-sectional research has shown that moral disengagement is associated with bullying perpetration (Caravita, Gini, & Pozzoli, 2012; Fitzpatrick & Bussey, 2018; Gini, Pozzoli, & Hauser, 2011; Mazzone, Camodeca, & Salmivalli, 2016; Pozzoli, Gini, & Thornberg, 2016; Tanrikulu & Campbell, 2015; Thornberg & Jungert, 2014; Thornberg, Pozzoli, Gini, & Jungert, 2015; for a recent meta-analysis, see Killer, Bussey, Hawes, & Hunt, 2019). In the context of cyberbullying, a recent study found that moral disengagement was positively associated with revenge motive, harm motive, and dominance motive of perpetration (Tanrikulu & Erdur-Baker, 2019). However, the directionality between moral disengagement and bullying perpetration remains unclear due to limited longitudinal research investigating this relationship (Gini, Pozzoli, & Hymel, 2014; Killer et al., 2019).

Barchia and Bussey (2011) conducted a short-term longitudinal study based on an Australian adolescent sample. Their findings revealed that moral disengagement predicted aggression eight months later, whereas aggression did not predict a change in moral disengagement. Sticca and Perren (2015) examined the longitudinal association between bullying perpetration and moral deficiencies among Swiss adolescents over a period of two years. In their study, moral deficiencies referred to moral disengagement, low moral responsibilities, and weak feelings of remorse. They found that the initial levels of moral deficiencies predicted the development of bullying perpetration, whereas the initial levels of bullying perpetration were not associated with changes in moral deficiencies, which was consistent with the findings of Barchia and Bussey (2011). A more recent study that investigated the longitudinal relationship between moral disengagement and bullying perpetration among U.S. adolescents was conducted by Wang et al. (2017). In line with the two previous studies, their findings showed that moral disengagement predicted bullying perpetration six months later, while bullying perpetration did not predict moral disengagement.

Obermann (2013) conducted a 1-year longitudinal study with early adolescents in Denmark. In contrast to the abovementioned studies, she found that both higher initial levels of bullying perpetration and increases in bullying perpetration predicted increases in moral disengagement. Unfortunately, the study did not investigate whether initial levels of moral disengagement and changes in moral disengagement predicted changes in bullying perpetration. There could be several explanations to why Obermann (2013) found that bullying perpetration predicted moral disengagement over time, which contradicts the findings from the other three longitudinal studies. There were cultural and methodological differences in the studies. In addition, Obermann's (2013) study involved slightly younger participants. Sticca and Perren (2015) suggested that bullying perpetration

in childhood might create moral deficiencies that become stable as a trait-like characteristic, which in turn predicts and increases the likelihood that an individual will engage in bullying perpetration during adolescence. This might explain why initial levels of bullying perpetration failed to predict the development of moral deficiencies among the adolescents. Altogether, these findings highlight the importance of further investigating the longitudinal association between moral disengagement and bullying perpetration in earlier ages.

The current study

The majority of studies on moral disengagement and bullying perpetration have used cross-sectional research designs, and the directionality of the association between moral disengagement and bullying perpetration remains unclear. Furthermore, whereas a handful of longitudinal studies have focused on adolescents, there is still a serious dearth of longitudinal research on moral disengagement and bullying perpetration in middle childhood. This study attempts to fill the gap in understanding the directionality between moral disengagement and bullying perpetration among Swedish children aged 10–12 years. The aim of the current study is to examine whether moral disengagement can predict children's bullying perpetration, and whether children's bullying perpetration can predict moral disengagement over a period of one year.

The following three research questions guide our study: (a) Does moral disengagement predict bullying behavior? (b) Does bullying behavior predict moral disengagement? and (c) Is the relationship unidirectional or bidirectional? With reference to the findings from previous longitudinal studies of adolescents conducted by Barchia and Bussey (2011), Sticca and Perren (2015), and Wang et al. (2017), we hypothesized that moral disengagement would predict bullying perpetration in middle childhood as well. Social-cognitive theory proposes that the change in moral disengagement and immoral behavior is a gradual, reciprocal process over time (Bandura, 1999, 2016). Based on the findings from Obermann's (2013) longitudinal study on early adolescents, we hypothesized that bullying perpetration would also predict moral disengagement in middle childhood. Hence, we hypothesized that the longitudinal relationship between moral disengagement and bullying perpetration in middle childhood would be bidirectional.

We simultaneously investigate the associations between moral disengagement and bullying over time, the associations between moral disengagement at Time 1 and at Time 2, and the associations between bullying at Time 1 and at Time 2. Indeed, previous studies have suggested that both moral disengagement and bullying show moderate or high stability over time, especially when studies are characterized by a short time frame (Paciello, Fida, Tramontano, Lupinetti, & Caprara, 2008; Scholte, Engels, Overbeek, Kemp, & Haselager, 2007; Sentse, Kiuru, Veenstra, & Salmivalli, 2014; Sticca & Perren, 2015). Analyzing the relationship between bullying perpetration and moral disengagement by taking into account their respective stability over time is crucial in order to understand the directionality of this association.

Finally, because previous studies have found that boys are more likely than girls to be inclined to morally disengage (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Barchia & Bussey, 2011; Erdur-Baker, Tanrikulu, & Topcu, 2016; Fitzpatrick & Bussey, 2018; Tanrikulu & Campbell, 2015; Thornberg & Jungert, 2014) and bully others (for meta-analyses, see Cook, Williams, Guerra, Kim, & Sadek, 2010; Mitsopoulou & Giovazolias, 2015), after testing the hypothetical, longitudinal relationship between moral disengagement and bullying perpetration for the entire sample, we test whether these relations held for both boys and girls separately.

Methods

Participants

The present study is part of a longitudinal project investigating social and moral correlates of bullying in Swedish schools. We invited 2,408 students (1,159 [48%] females and 1,249 [52%] males) from 116

fourth-grade classes in 74 schools to participate in the study. Socioeconomic data were not gathered on an individual level. However, the selection of schools was strategic in that our sample included students from socioeconomically and socio-geographically diverse sites in Sweden (from lower-class to upper middle-class; rural areas, small towns, medium-sized and large cities). Twenty-five percent (599 students) of the original sample in fourth grade did not participate due to lack of parental consent. Furthermore, 183 students were absent on the day of data collection for various reasons (e.g., sickness). Thus, at Time 1 in fourth grade, 1,626 students (840 [52%] females and 786 [48%] males) from 116 elementary school classes in 74 public schools participated. Among those, 1,540 students reported data on moral disengagement and bullying perpetration.

Of the 1,540 students who completed both scales in fourth grade, 1,354 students completed both scales in fifth grade as well. Thus, the final sample in the current study was 1,354 students (706 [52%] females and 648 [48%] males) from 108 elementary classes in 69 public schools. These students completed both scales at Time 1 in the fourth grade ($M_{\text{age}} = 10.54$, $SD = 0.35$) and then around one year later at Time 2 in the fifth grade ($M_{\text{age}} = 11.54$, $SD = 0.32$). Most of the participants were of Swedish ethnicity, whereas a minority (19%) had a foreign background, in other words they were born in another country and/or both parents were born in another country. Little's MCAR test indicated that the missing data were not missing completely at random ($\chi^2(343) = 465.21$, $p < .000$). This could, however, be due to the large sample size. Missing data analyses were performed to examine whether there were any differences between students who dropped out ($n = 186$) and those who stayed ($n = 1354$). No significant differences were found for gender proportions ($P_{\text{dropout}} = 0.52$, $P_{\text{stay}} = 0.48$, $p = .308$), moral disengagement at Time 1 ($M_{\text{dropout}} = 1.58$, $SD_{\text{dropout}} = 0.97$, $M_{\text{stay}} = 1.65$, $SD_{\text{stay}} = 1.08$, $p = .818$), or bullying perpetration at Time 1 ($M_{\text{dropout}} = 1.18$, $SD_{\text{dropout}} = 0.37$, $M_{\text{stay}} = 1.14$, $SD_{\text{stay}} = .32$, $p = .081$).

Setting

In Swedish elementary schools, students have one classroom (homeroom) in which most of their classes take place, and they have the same classroom teacher for most subjects. Normally, they have one classroom teacher for grades 1–3 who is then replaced by another classroom teacher in grades 4–6.

Procedure

We informed school principals and teachers about the study and, in response, they provided access to the classrooms. We obtained active parental consent and student assent from all 1,354 participants. Data were collected from a web-based self-report questionnaire, which the participant filled in on a tablet in their regular classrooms. Either a member of the research team or a teacher was present throughout the session to explain the study procedure and assist the participants. Teachers received instructions from the first author through a 21-minute long video. The team members and the teachers were instructed to neither look at nor interfere with the participants' responses, but to clarify instructions, questions and words in the questionnaire if the participants raised their hands for clarifications.

Measures

Moral disengagement in peer victimization

According to the social-cognitive theory (Bandura, 2016), moral disengagement operates across various aspects of life but manifests itself differently depending on the situation or activity. Therefore, we did not measure moral disengagement as manifested in antisocial behaviors in general (e.g., Bandura et al., 1996) but situated and manifested in peer victimization. An 18-item scale was developed to measure individual moral disengagement in peer victimization. Students rated each item (e.g., "People who get teased don't really get too sad about it," "If you can't be like everybody else, it is your own fault if you get bullied") on a seven-point scale (1 = strongly disagree to 7 = strongly agree). Cronbach's α was .82 at Time 1 and .87 at Time 2. Confirmatory Factor Analyses (CFAs) indicated

good fit at each time point (Time 1: $\chi^2(135) = 216.82$, $p = .000$, CFI = .99, RMSEA = .02; Time 2: $\chi^2(135) = 185.19$, $p = .003$, CFI = .98, RMSEA = .02).

Bullying perpetration

An 11-item self-report scale (Bjärehed, Thornberg, Wänström, & Gini, 2019) was used to measure bullying perpetration without using the word “bullying” to avoid the risks of under-reporting (i.e., social desirability bias based on the socially negative loading of the word) and misconception (i.e., incomplete, inaccurate or misleading personal conceptions of bullying). Instead of mentioning the word “bullying” and providing an a priori definition of bullying, the students were asked, “Think about the past three months: How often have you done the following things towards someone who is weaker, less popular or less in charge in comparison to you?” The following behavioral items included five physical bullying items (e.g., “Beat or kicked someone in order to hurt him or her,” “Held someone against their will”), three verbal bullying items (e.g., “Teased and called the person mean names”), and three relational bullying items (e.g., “Spread mean rumors or lied about the person”). For each item, the participants responded on a five-point scale from 1 = I have never done it to 5 = Several times a week. Cronbach’s α was .89 at Time 1 and .89 at Time 2. CFAs indicated good fit at each time point (Time 1: $\chi^2(44) = 29.30$, $p = .957$, CFI = 1.00, RMSEA = .00; Time 2: $\chi^2(44) = 28.02$, $p = .971$, CFI = 1.00, RMSEA = .00).

Analyses

Confirmatory Factor Analysis (CFA) and Structural Equation Model (SEM) analysis were conducted using the Lavaan package in R with DWLS estimation. The latent variables, moral disengagement in peer victimization (which from here on we will refer to as “moral disengagement”) at Time 1 (MD1) and Time 2 (MD2), were assumed to be measured by the 18 items at Times 1 and 2, respectively. The latent variables, bullying perpetration at Time 1 (Bull1) and Time 2 (Bull2), were assumed to be measured by the 11 items at Times 1 and 2. First, CFAs were conducted, testing for measurement invariance over time of the moral disengagement and bullying perpetration scales (i.e., four factors: MD1, Bull1, MD2, Bull2). Second, we estimated a longitudinal SEM model to examine structural relationships between moral disengagement and bullying perpetration at Times 1 and 2. Finally, we estimated longitudinal SEM models to examine the structural relations for boys and girls separately. Models were assumed to fit well if CFI > .95 and RMSEA < .07 (Hooper, Coughlan, & Mullen., 2008). In addition, decreases in CFI and RMSEA larger than .010 and .015, respectively, as the result of constraining parameters, were assumed to indicate worse-fitting models (see Chen, 2007).

Results

Correlations

Because the size of the inter-item correlation matrix that our analyses were based on was very large (a 58×58 table), we instead present the intercorrelations between the mean items for moral disengagement in peer victimization (which from here on we will refer to as “moral disengagement”) and bullying perpetration at both time points. All variables were positively correlated with each other ($p < .001$). Consistent with our expectations, moral disengagement was positively associated with bullying perpetration within each time point ($r_{T1} = .37$, $r_{T2} = .50$). Moral disengagement at Time 1 was also positively correlated with bullying perpetration at Time 2 ($r = .21$), and bullying perpetration at Time 1 was positively correlated with moral disengagement in at Time 2 ($r = .37$). The correlations also indicated cross-time stability of moral disengagement ($r = .45$) and bullying perpetration ($r = .37$).

To test for measurement invariance of the scales over time, a CFA model was fitted with unconstrained factor loadings and intercepts across time points. The model fit was good ($\chi^2 [1367] = 1457.45$; $p = .044$,

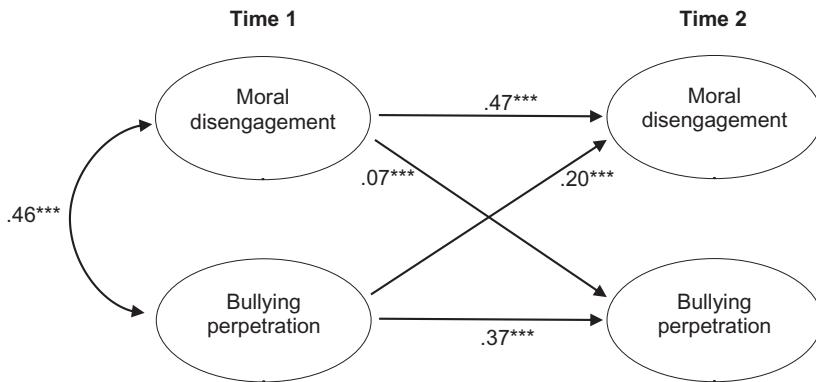


Figure 1. The SEM model for the total sample.

*** $p < .001$

CFI = 1.00, RMSEA = .01). We then constrained the factor loadings to be equal over time ($\chi^2 [1559] = 1973.25; p = .000$, CFI = .98; RMSEA = .01). The model fit was still good, and changes in CFI and RMSEA across the models did not exceed .010 and .015, respectively, indicating metric invariance over time. Next, we constrained the loadings and intercepts to be equal over time ($\chi^2 [1645] = 3052.39; p = .000$, CFI = .93; RMSEA = .03). Because of large decreases in both CFI and RMSEA, the model no longer indicated a good fit. We therefore decided to constrain only the factor loadings to be equal over time in our subsequent models.

Next, we estimated an SEM model in which moral disengagement at Time 1 predicted both moral disengagement and bullying perpetration at Time 2, and bullying perpetration at Time 1 predicted moral disengagement and bullying perpetration at Time 2. Our model showed a good fit ($\chi^2 [1559] = 1973.25, p = .000$, CFI = .98, RMSEA = .01). As shown in Figure 1 (standardized estimates of the coefficients estimating the paths between the latent variables, with item indicators omitted), moral disengagement at Time 1 positively predicted bullying perpetration at Time 2 when controlling for bullying perpetration at Time 1. Bullying perpetration at Time 1 also positively predicted moral disengagement at Time 2 when controlling for moral disengagement at Time 1. In addition, moral disengagement at Time 1 positively predicted moral disengagement at Time 2, and bullying perpetration at Time 1 positively predicted bullying perpetration at Time 2. Finally, moral disengagement and bullying perpetration were positively correlated at Time 1. All unstandardized estimates (including item loadings and variances) are reported in Table 1.

We then performed analyses for boys and girls, to see if the effects found in our previous SEM analysis would hold across both genders. Our model for boys showed a good fit ($\chi^2 [1559] = 1417.39, p = .995$, CFI = 1.00, RMSEA = .00). The CFI index for girls was however slightly low, whereas the RMSEA index indicated good fit ($\chi^2 [1559] = 2221.607, p = .000$, CFI = .91, RMSEA = .03). As shown in Figure 2, the positive effects and correlation found in the overall model (see Figure 1) held for both boys and girls.

In sum, children who scored high on bullying perpetration in fourth grade were more inclined to morally disengage in fourth grade. They were also more inclined to morally disengage one year later, even after controlling for their initial levels of moral disengagement in fourth grade. In addition, they were more inclined to score high on bullying perpetration in fifth grade. Further, children who scored high on moral disengagement in fourth grade were more inclined to score high on moral disengagement in fifth grade. These relations held for both boys and girls.

Discussion

To our knowledge, the current study is the first to test the longitudinal relationship between moral disengagement in peer victimization (which from here on we will refer to as “moral disengagement”)

Table 1. Unstandardized estimates from the SEM analysis for the full sample.

Loadings	<i>b</i>	SE	<i>z</i>	<i>p</i>
MD1	1.00			
MD2	0.86	0.03	27.24	0.000
MD3	0.86	0.03	28.48	0.000
MD4	0.85	0.03	25.06	0.000
MD5	0.81	0.03	27.09	0.000
MD6	0.93	0.03	27.10	0.000
MD7	0.42	0.02	22.62	0.000
MD8	0.75	0.03	26.69	0.000
MD9	0.84	0.03	26.09	0.000
MD10	0.90	0.03	26.55	0.000
MD11	0.22	0.01	18.26	0.000
MD12	0.80	0.03	27.05	0.000
MD13	0.79	0.03	25.72	0.000
MD14	0.80	0.03	27.22	0.000
MD15	0.95	0.03	27.35	0.000
MD16	0.81	0.03	27.23	0.000
MD17	0.67	0.03	25.84	0.000
MD18	0.89	0.03	26.66	0.000
BULL1	1.00			
BULL2	0.84	0.03	25.05	0.000
BULL3	0.92	0.04	25.95	0.000
BULL4	1.12	0.04	27.60	0.000
BULL5	0.84	0.03	25.08	0.000
BULL6	0.81	0.03	24.50	0.000
BULL7	0.57	0.03	23.08	0.000
BULL8	0.77	0.03	24.68	0.000
BULL9	0.55	0.02	22.99	0.000
BULL10	0.82	0.03	25.91	0.000
BULL11	0.43	0.02	20.80	0.000
Regressions	<i>b</i>	SE	<i>z</i>	<i>p</i>
MD1-MD2	0.54	0.02	24.36	0.000
BULL1-MD2	0.42	0.04	10.55	0.000
MD1-BULL2	0.04	0.01	4.21	0.000
BULL1-BULL2	0.43	0.02	18.27	0.000
Covariance	<i>b</i>	SE	<i>z</i>	<i>p</i>
MD1-BULL1	0.09	0.00	23.00	0.000
Variances	<i>b</i>	SE	<i>z</i>	<i>p</i>
MD1	0.36	0.02	19.33	0.000
MD2	0.31	0.02	17.42	0.000
BULL1	0.11	0.01	17.51	0.000
BULL2	0.12	0.01	15.84	0.000

and bullying perpetration in middle childhood using a statistical model in which both the stability of these two variables and their concurrent and longitudinal associations were taken into account. Consistent with our hypothesis and Obermann's (2013) study on early adolescents, but contrary to other research on adolescents (Barchia & Bussey, 2011; Sticca & Perren, 2015; Wang et al., 2017), we found that bullying perpetration predicted moral disengagement one year later, when controlling for moral disengagement stability over time. Concurrent correlations between the two variables were also confirmed. In line with the social-cognitive theory on moral disengagement (Bandura, 2016) and prior cross-sectional studies (Killer et al., 2019), children who are more prone to moral disengagement tend to be more inclined to bully others. Also, children who more often bully others are more prone to develop a higher tendency of moral disengagement over time, independent of their initial levels of moral disengagement. In other words, bullying perpetration precedes moral disengagement over time in middle childhood. Thus, and with reference to Sticca and Perren's (2015) hypothetical proposal, our study suggests that bullying perpetration in middle childhood might initiate a more frequent and intense use of moral disengagement over time. Moral

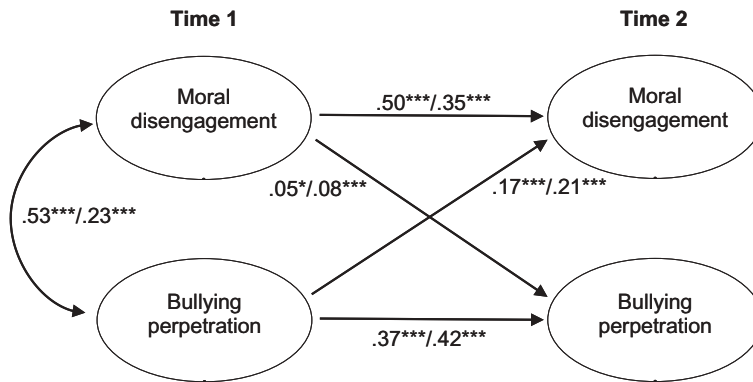


Figure 2. The SEM models for boys and girls.

*** $p < .001$, * $p < .05$

Note: Model for boys are denoted by left of the dash and girls are denoted by right of the dash.

disengagement might then become stable as a trait-like characteristic that in turn predicts and increases the likelihood of engaging in bullying perpetration during adolescence, as suggested by previous studies (Barchia & Bussey, 2011; Sticca & Perren, 2015; Wang et al., 2017) and the social-cognitive theory on moral disengagement (Bandura, 1999, 2016). Bandura (1999) argues that individuals conduct milder forms of aggressions that they can tolerate with some discomfort, and by a gradual increase in moral disengagement through repeated aggressions, inhumane behaviors increase over time and become thoughtlessly routinized.

Consistent with previous studies with adolescents as participants (Barchia & Bussey, 2011; Sticca & Perren, 2015; Wang et al., 2017), moral disengagement at Time 1 also predicted bullying perpetration at Time 2 in middle childhood, when controlling for moral disengagement at Time 1. Thus, our findings support the hypothesis that the longitudinal relationship between moral disengagement and bullying perpetration is bidirectional in middle childhood, which in turn validates the social-cognitive theory of moral disengagement. As indicated in the theory (Bandura, 1999, 2016), changes in moral disengagement and bullying perpetration seem to be gradual, reciprocal processes over time. Whereas previous longitudinal studies on adolescents (Barchia & Bussey, 2011; Sticca & Perren, 2015; Wang et al., 2017) suggest that moral disengagement appears to have become a stable, trait-like characteristic that predicts and increases the likelihood of bullying perpetration during adolescence (cf., Sticca & Perren, 2015), our study suggests that bullying perpetration in middle childhood can also form moral disengagement.

Limitations and future research

Some limitations of the current study should be noted. First, it was based on self-reported data, and thus vulnerable to risks of inflated associations due to shared method variance as well as biased estimates due to careless marking, social desirability, and intentionally exaggerated responses (Cornell & Bandyopadhyay, 2010). Previous longitudinal studies have used self-reported data as well (Barchia & Bussey, 2011; Obermann, 2013; Sticca & Perren, 2015; Wang et al., 2017). This is also the case with most of the cross-sectional studies. However, at least ten studies have used peer-nomination to measure bullying and they were also able to find a link between moral disengagement and bullying (Killer et al., 2019). Future research with peer nomination data could explore the longitudinal associations between moral disengagement and bullying perpetration further. Additionally, our longitudinal research design covered only one year and two measurement time points. In order to examine the linearity and directionality of the changes over time as the students

grow older, future longitudinal studies should follow the students from childhood to adolescence and consider more measurement time points. Third, the moral disengagement in bullying perpetration scale has been developed for this longitudinal study, and needs to be further validated in future studies. Fourth, the CFI index for the female SEM model was a little low, and the model should therefore be interpreted with caution. Nevertheless, the RMSEA index of the female model indicated a good fit, and all associations shown in the entire sample model and in the male model were confirmed in the female model. Future research could however further test whether the bidirectional, longitudinal associations between moral disengagement and bullying perpetration found in the present study hold for both females and males. Fifth, the present analyses did not include any contextual variables (e.g., school climate, classroom climate, and collective moral disengagement). Future research could include these variables using multilevel SEM analyses, examining possible cross-level interaction and moderation effects. Finally, this study used a Swedish sample. Thus, replications of the current findings should be conducted cross-nationally.

Implications and conclusions

This study revealed both concurrent and bidirectional longitudinal associations between moral disengagement and bullying perpetration in middle childhood. This supports the social-cognitive theory on moral disengagement (Bandura, 2016) as the theory postulates a developmental path of gradual and intertwined change of moral disengagement and inhumane behaviors due to interplay between personal and behavioral factors. Moral disengagement influences and predicts inhumane behavior, and inhumane behavior influences and predicts moral disengagement. The study has implications for parents and schools. Prior research has found that poor and harsh parenting has been associated with higher levels of moral disengagement (Campaert, Nocentini, & Menesini, 2018; Wang, Wu, & Chong, 2019). High parental monitoring and low parental hostility, on the other hand, reduce the risk of moral disengagement (Ishoy, 2017). In a recent study, Qi (2019) found that harsh parenting was both directly and indirectly related to aggression via moral disengagement. Our study suggests that moral disengagement predicts bullying perpetration. Parents should therefore make efforts to reduce the risks of their children engaging in bullying perpetration by exercising appropriate parental monitoring, while at the same time avoiding harsh and aggressive discipline. The latter can actually increase children's expectations of parental approval of aggression (Campaert et al., 2018).

Bullying prevention and intervention efforts in schools should focus on moral disengagement in schoolchildren as well as on bullying. It is crucial to raise students' awareness of various moral disengagement mechanisms and how these social-cognitive processes can affect their attitudes and behaviors. Teachers, school staff, and school psychologists need to include interventions that aim to counteract and decrease an otherwise increasing inclination to morally disengage in peer victimization, when working with identified bullying cases. Our findings suggest that bullying perpetration leads to moral disengagement in middle childhood, which in turn predicts bullying perpetration, as shown in several studies (Barchia & Bussey, 2011; Sticca & Perren, 2015; Wang et al., 2017). Early interventions to decrease moral disengagement in young bullies should therefore be a component of bullying prevention programs. It is however also important to focus on efforts to deter bullying perpetration in the first place because such behavior can predict moral disengagement over time. A habit of bullying can otherwise begin to distort moral cognition over time.

Supervising or monitoring is as important for teachers and school staff as it is for parents. Improved playground supervision, along with parent training/meetings, disciplinary methods, classroom management and classroom rules, are some of the most important bullying prevention efforts that have been associated with a decrease in bullying perpetration in schools (for a meta-analysis, see Ttofi & Farrington, 2011). The more effective schools are at preventing and reducing bullying perpetration in the playground and other school areas, the lower the risk of students developing a gradual and bidirectional cycle of moral disengagement and bullying perpetration. In conclusion,

both parents and school staff should work to counteract children's moral disengagement and bullying perpetration, since both of these components facilitate and predict each other.

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References

- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*, 3, 193–209. doi:10.1207/s15327957pspr0303_3
- Bandura, A. (2016). *Moral disengagement: How people do harm and live with themselves*. New York, NY: Worth.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*, 71, 364–374. doi:10.1037/0022-3514.71.2.364
- Barchia, K., & Bussey, K. (2011). Individual and collective social cognitive influences on peer aggression: Exploring the contribution of aggression efficacy, moral disengagement, and collective efficacy. *Aggressive Behavior*, 37, 107–120. doi:10.1002/ab.20375
- Bender, D., & Lösel, F. (2011). Bullying at school as a predictor of delinquency, violence and other anti-social behaviour in adulthood. *Criminal Behaviour and Mental Health*, 21, 99–106. doi:10.1002/cbm.799
- Bjärehed, M., Thornberg, R., Wänström, L., & Gini, G. (2019). Mechanisms of moral disengagement and their associations with indirect bullying, direct bullying, and pro-aggressive bystander behavior. *The Journal of Early Adolescence*. doi:10.1177/0272431618824745

- Campaert, K., Nocentini, A., & Menesini, E. (2018). The role of poor parenting and parental approval for children's moral disengagement. *Journal of Child and Family Studies*, 27, 2656–2667. doi:10.1007/s10826-018-1097-1
- Caravita, S. C. S., Gini, G., & Pozzoli, T. (2012). Main and moderate effects of moral cognition and status on bullying and defending. *Aggressive Behavior*, 38, 456–468. doi:10.1002/ab.21447
- Chen, F. F. (2007). Sensitivity of Goodness of Fit Indexes to lack of measurement invariance. *Structural Equation Modeling*, 14, 464–504. doi:10.1002/ab.21447
- Chester, K. L., Callaghan, M., Cosma, A., Donnelly, P., Craig, W., Walsh, S., & Molcho, M. (2015). Cross-national time trends in bullying victimization in 33 countries among children aged 11, 13 and 15 from 2002 to 2010. *European Journal of Public Health*, 25, 61–64. doi:10.1093/eurpub/ckv029
- Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. *School Psychology Quarterly*, 25, 65–83. doi:10.1037/a0020149
- Copeland, W. E., Wolke, D., Angold, A., & Costello, E. J. (2013). Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence. *JAMA Psychiatry*, 70, 419–426. doi:10.1001/jamapsychiatry.2013.504
- Cornell, D. G., & Bandyopadhyay, S. (2010). The assessment of bullying. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 265–276). New York, NY: Routledge.
- Erdur-Baker, Ö., Tanrikulu, I., & Topcu, C. (2016). Gender differences in cyberbullying perpetration: The role of moral disengagement and aggression. In M. F. Wright (Ed.), *A social-ecological approach to cyberbullying* (pp. 67–96). New York, NY: Nova Science Publishers.
- Fitzpatrick, S., & Bussey, K. (2018). The role of moral disengagement on social bullying in dyadic very best friendships. *Journal of School Violence*, 17, 417–429. doi:10.1080/15388220.2017.1355810
- Gini, G., Pozzoli, T., & Hauser, M. (2011). Bullies have enhanced moral competence to judge relative to victims, but lack moral compassion. *Personality and Individual Differences*, 50, 603–608. doi:10.1016/j.paid.2010.12.002
- Gini, G., Pozzoli, T., & Hymel, S. (2014). Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. *Aggressive Behavior*, 40, 56–68. doi:10.1002/ab.21502
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6, 53–60. doi:10.21427/D7CF7R
- Hymel, S., Schonert-Reichl, K. A., Bonanno, R. A., Vaillancourt, T., & Rocke Henderson, N. (2010). Bullying and morality. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of bullying in schools: An international perspective* (pp. 101–118). New York, NY: Routledge.
- Ishoy, G. A. (2017). Exploring morality as a mediator of the association between parenting practices and violent and property offending among a sample of juvenile delinquents. *Crime & Delinquency*, 63, 113–136. doi:10.1177/001128714560810
- Jimerson, S. R., Swearer, S. M., & Espelage, D. L. (Eds.). (2010). *Handbook of bullying in schools: An international perspective*. New York, NY: Routledge.
- Killer, B., Bussey, K., Hawes, D., & Hunt, C. (2019). A meta-analysis of the relationship between moral disengagement and bullying roles in youth. *Aggressive Behavior*, 45, 450–462. Advance online publication. doi:10.1002/ab.21833
- Lian, Q., Su, Q., Li, R., Elgar, F. J., Liu, Z., & Zheng, D. (2018). The association between chronic bullying victimization with weight status and body self-image: A cross-national study in 39 countries. *PeerJ*, 6, e4330. doi:10.7717/peerj.4330
- Luukkonen, A.-H., Riala, K., Hakko, H., & Räsänen, P. (2011). Bullying behaviour and criminality: A population-based follow-up study of adolescent psychiatric inpatients in northern Finland. *Forensic Science International*, 207, 106–110. doi:10.1016/j.forsciint.2010.09.012
- Mazzone, A., Camodeca, M., & Salmivalli, C. (2016). Interactive effects of guilt and moral disengagement on bullying, defending and outsider behavior. *Journal of Moral Education*, 45, 419–432. doi:10.1080/03057240.2016.1216399
- Mitsopoulou, E., & Giovazolias, T. (2015). Personality traits, empathy and bullying behavior: A meta-analytic approach. *Aggression and Violent Behavior*, 21, 61–72. doi:10.1016/j.avb.2015.01.007
- Obermann, M.-L. (2013). Temporal aspects of moral disengagement in school bullying? Crystallization or escalation? *Journal of School Violence*, 12, 193–210. doi:10.1080/15388220.2013.766133
- Olweus, D. (1993). *Bullying at school*. Malden, MA: Blackwell.
- Paciello, M., Fida, R., Tramontano, C., Lupinetti, C., & Caprara, G. V. (2008). Stability and change of moral disengagement and its impact on aggression and violence in late adolescence. *Child Development*, 79, 1288–1309. doi:10.1111/j.1467-8624.2008.01189.x
- Pozzoli, T., Gini, G., & Thornberg, R. (2016). Bullying and defending behavior: The role of explicit and implicit moral cognition. *Journal of School Psychology*, 59, 67–81. doi:10.1016/j.jsp.2016.09.005
- Qi, W. (2019). Harsh parenting and child aggression: Child moral disengagement as the mediator and negative parental attribution as the moderator. *Child Abuse & Neglect*, 91, 17–22. doi:10.1016/j.chiabu.2019.02.007

- Renda, J., Vassallo, S., & Edwards, B. (2011). Bullying in early adolescence and its association with anti-social behaviour, criminality and violence 6 and 10 years later. *Criminal Behaviour and Mental Health*, 21, 117–127. doi:10.1002/cbm.805
- Scholte, R. H. J., Engels, R. C. M. E., Overbeek, G., Kemp, R. A. T., & Haselager, G. J. T. (2007). Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of Abnormal Child Psychology*, 35, 217–228. doi:10.1007/s10802-006-9074-3
- Sentse, M., Kiuru, N., Veenstra, R., & Salmivalli, C. (2014). A social network approach to the interplay between adolescents' bullying and likeability over time. *Journal of Youth and Adolescence*, 43, 1409–1420. doi:10.1007/s10964-014-0129-4
- Smith, P. K., & Sharp, S. (Eds.). (1994). *School bullying: Insights and perspectives*. London: Routledge. doi:10.4324/9780203425497
- Stavriniades, P., Georgiou, S., Nikiforou, M., & Kiteri, E. (2011). Longitudinal investigation of the relationship between bullying and psychosocial adjustment. *European Journal of Developmental Psychology*, 8, 730–743. doi:10.1080/17405629.2011.628545
- Sticca, F., & Perren, S. (2015). The chicken and the egg: Longitudinal associations between moral deficiencies and bullying: A parallel process latent growth model. *Merrill-Palmer Quarterly*, 61, 85–100. doi:10.13110/merrpalmquar1982.61.1.0085
- Tanrikulu, I. (2018). Cyberbullying prevention and intervention programs in schools: A systematic review. *School Psychology International*, 39, 74–91. doi:10.1177/0143034317745721
- Tanrikulu, I., & Campbell, M. (2015). Correlates of traditional bullying and cyberbullying perpetration among Australian students. *Children and Youth Services Review*, 55, 138–146. doi:10.1016/j.childyouth.2015.06.001
- Tanrikulu, I., & Erdur-Baker, Ö. (2019). Motives behind cyberbullying: A test of uses and gratifications theory. *Journal of Interpersonal Violence*, 088626051881988. Advance online publication. doi:10.1177/0886260518819882
- Thornberg, R. (2010). A study of children's conceptions of school rules by investigating their judgments of transgressions in the absence of rules. *Educational Psychology*, 30, 583–603. doi:10.1080/01443410.2010.492348
- Thornberg, R., & Jungert, T. (2014). School bullying and the mechanisms of moral disengagement. *Aggressive Behavior*, 40, 99–108. doi:10.1002/ab.21509
- Thornberg, R., Pozzoli, T., Gini, G., & Hong, S. J. (2017). Bullying and repeated conventional transgressions in Swedish schools: How do gender and bullying roles affect students' conceptions? *Psychology in the Schools*, 54, 1189–1201. doi:10.1002/pits.22054
- Thornberg, R., Pozzoli, T., Gini, G., & Jungert, T. (2015). Unique and interactive effects of moral emotions and moral disengagement on bullying and defending among school children. *The Journal of Elementary School*, 116, 322–337. doi:10.1086/683985
- Thornberg, R., Thornberg, U. B., Alamaa, R., & Daud, N. (2016). Children's conceptions of bullying and repeated conventional transgressions: Moral, conventional, structuring, and personal-choice reasoning. *Educational Psychology*, 36, 95–111. doi:10.1080/01443410.2014.915929
- Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology*, 7, 27–56. doi:10.1007/s11292-010-9109-1
- Wang, C., Ryoo, J. H., Swearer, S. M., Turner, R., & Goldberg, T. S. (2017). Longitudinal relationships between bullying and moral disengagement among adolescents. *Journal of Youth and Adolescence*, 46, 1304–1317. doi:10.1007/s10964-016-0577-0
- Wang, M., Wu, X., & Chong, D. (2019). Different mechanisms of moral disengagement as multiple mediators in the association between harsh parenting and adolescent aggression. *Personality and Individual Differences*, 139, 24–27. doi:10.1016/j.paid.2018.10.037